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HAYNES AND BOONE, LLP
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Dallas, TX 75202

EXAMINER

NELSON, FREDA ANN

ART UNIT	PAPER NUMBER
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3628

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/774,521	Applicant(s) LIN ET AL.	
	Examiner FREDA A. NELSON	Art Unit 3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 46-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 46-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment received on April 28, 2008 is acknowledged and entered.

Claims 25-45 have been canceled. Claims 46-52 have been added. Claims 1-24 and 46-52 are currently pending.

Response to Amendment and Arguments

Applicant's arguments filed April 28, 2008 have been fully considered but they are not persuasive.

In response to applicant's argument that in regards to claims 1 and 13, Mori does not teach "calculating a price based in part on the level of utilization of manufacturing equipment", the Examiner respectfully disagrees.

Mori et al. disclose the bidding data includes a header including a flag, which represents that the data is the bidding data, the name of photomask manufacturer, the product number, the responded delivery date and the responded price; the photomask manufacturer determines a degree of production difficulty based on the specifications of the photomask included in the received estimation request data, and determines the price; and the degree of production difficulty is calculated based on a yield corresponding to the specifications of photomask. The responded delivery date is calculated based on the yield, which depends on the specifications of the photomask included in the received estimation request data, and an operation time of devices used for the production, wherein the devices used for production include a device for drawing a photomask pattern, a defect inspection device and an element size measuring

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device. The operation time is a sum of operations times of these drawing device, defect inspection device and element size measuring device.

In response to applicant's piecemeal analysis of the references, "one cannot show non-obviousness by attacking references individually where, as here, the rejections are based on combinations of references." In re Keller, Terry, and Davies, 208 USPQ 871, 882 (CCPA 1981). In the instant case, Mori et al. is concerned with selecting a photomask manufacturer based on a number of factors; and Katz is concerned with improving decision-making in business enterprises of suppliers and procurement professionals.

In response to Applicant's argument that in regards to claims 5 and 17, the cited portion of Katz does not disclose that the proprietary information is "provided to the customer and the account sales", the Examiner asserts that Katz discloses in paragraph [0067] execution services 82 implement and automate the data results of recommended services 80 and recommend specific actions based on user-defined criteria. The user then preferably chooses to either set the automation features of execution services 82 to automatic mode, which automates all of the features and actions, or chooses to set the automation features to semi-automatic mode, which allows the user to automate some features and actions while not automating others (thus, automation levels of a first level, with a greater range of permitted automated action, or of a second level, with a more restricted range of permitted automated action, and perhaps additional levels, may be selected.) In addition, the user may chose to request that VCI system 28 generate a computer-readable output that can be fed into

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another system that initiate or effect action with that data. The functionalities of execution services 82 enable users to integrate VCI system 28 with other process-oriented ERP and SCM applications to pursue a plurality of actions. The functionalities of execution services 82 preferably include: *initiating a transaction* via another application. For example, *a user may initiate a transaction for purchasing a specific component from a specific vendor ([0069])*; and carrying out certain transactions, such as *generating and sending out a RFQ ([0070])*.

In response to applicant's argument that that the cited portion of Katz does not discuss or even suggest "regional information" and "the Examiner has not considered the requirement that "the regional information includes data on the financial impact of the pricing decision", the Examiner asserts that Katz discloses VCI system 28 preferably monitors external data sources 152 and 158 for such events, and extracts with extraction modules 164 and 166 news about the event, and stores the pertinent data, such as the type of event, date, time, manufacturer's name, location of the manufacturing facility, etc., in data mart 74 and rules engine 96 is notified of this news event; additional data is required by VCI system 28 in order to determine if this news event can have an impact on VCI customer A. (*The additional data is a combination of internal data 30 and external data 32.*) Accordingly, subscription content from internal data sources 158 and/or 152 provides information about which product families are manufactured at which manufacturing facilities. (Such geographic information, for example, is preferably presented as zip codes or similar such means) ([0311]).

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Katz further discloses VCI system 28 automatically invokes one or a plurality of software modules in response to incoming data about an external event or an internal event; and in general, in accordance with such embodiments, *the discussion herein regarding external events is also desirably applied to internal events of similar type or character (e.g., internal events affecting a geographic area, distribution network, manufacturing or distribution entity, a specific facility, the production of a specific component, a combination thereof, etc.) from one or more data sources internal to an enterprise ([0317],[0275]).*

Claim Rejections - 35 USC § 112, 1st Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claim 46 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

While the specification of the instant application discloses in paragraph [0027], "Wafer price would be affected by the Wafer Price equation, along with information from the case document and the global database concerning yield estimations, technology complexity, and the number of mask layers", the

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examiner is unable to locate *"wherein the level of technological complexity is related to the number of mask layers."*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 47-48 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 47, the claim language "pricing decision **may affect**" does not positively recite that level of utilization is affected.

As per claim 48, The claim language "a price **to be charged**" does not positively recite that the price is charged.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 13-16, 18 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Mori et al. (US PG Pub. 2002/0143424).

As per claims 1 and 47, Mori et al discloses a method for processing a semiconductor industry pricing decision comprising:

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building a case document based on customer information and account sales information, wherein the customer information includes information about a level of technology required to produce a semiconductor product for a customer ([0016], [0020],[0022],[0136]-[0137]);

providing the case document to a case analyzer ([0051]);

providing internal information to the case analyzer, wherein the internal information includes information about a level of utilization of manufacturing equipment that would be used to produce the semiconductor product ([0066]); and

generating a case summary document by the case analyzer, wherein the generating includes calculating a price based in part on the level of utilization of manufacturing equipment and level of technological complexity ([0066],[0142]);

wherein the case summary document includes a pricing option associated with a product or service that is to be provided for the customer ([0066]).

As per claims 2 and 14, Mori et al. discloses making a pricing decision using the case summary document ([0136]-[0137]).

As per claims 3-4 and 15-16, Mori et al. discloses adjusting a database based on the pricing decision. ([0110]).

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As per claims 6 and 18, Mori et al. discloses wherein the customer information includes a quantity of a product that is needed and a date when the product is needed (FIG. 12).

As per claim 13, Mori et al. discloses a method for processing a semiconductor industry pricing decision comprising:

- receiving customer order information ([0136]);
- providing account sales information that is specific to the customer order information ([0137]);
- building a case document based on customer order information and account sales information ([0016],[0136]-[0137]);
- providing the case document to a case analyzer ([0051]);
- providing internal information to the case analyzer ([0066]); and
- generating a case summary document by the case analyzer program, wherein the generating includes calculating a price based in part on a level of utilization of manufacturing equipment and a level of technological complexity ([0066], [0142]);

wherein the case summary document includes a pricing option associated with a product or service that is to be provided for the customer ([0066]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5, 7-12, 17, 19-24 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US PG Pub. 2002/0143424) in view of Katz et al. (US PG Pub. 2002/0178077).

As per claims 5, 17, and 52, Mori et al. does not expressly disclose wherein the pricing decision is provided to the customer and the account sales.

Katz et al. discloses Internal data from Customer Relationship Management (CRM) systems 58 preferably include proprietary information about customer relations, such as profits, billing, contracts, sales activity data, contact management data, customer segmentation data, product and services profiles, marketing plans, POs, order tracking data, order acquisition data, customer address directories, customer preferences, customer site information, vital customer data, customer service management data, field service data, order life cycle process, and/or CRM planning data, etc. ([0036]-[0037][0039],[0044]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Katz et al. in order to provide a number of users with pricing information.

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As per claims 7 and 19, Mori et al. does not explicitly disclose wherein the account sales information includes a history of price quotes offered to the customer.

Katz et al. discloses external data from suppliers 60 preferably comprise data about suppliers and vendors, such as product catalog data, prices, quantity, availability, product specifications, delivery date, supplier location, shipping locations, total net landed cost, current sales offers, past sales offers, and/or lead time, etc. External data from product databases 62 preferably include data about products, such as product catalog data, product name, product description, product specifications, design schematics, manufacturers, manufacturer information, manufacturer specifications, part numbers, End of Life (EOL) information, class of equivalent parts, class of upgrade parts, standard industry categories, classes of parts that are equivalent to said component for certain specified applications, and/or links to manufacturer's datasheets, etc., from a plurality of product databases ([0046])

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Katz et al. in order to record historical sales data and offers to be used as a basis for future offers.

As per claims 8,11, 20 and 23, Mori et al. does not expressly disclose reviewing the case document before providing it to the case analyzer to make a decision whether to provide the case document to the case analyzer; and

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wherein the decision is made not to provide the case document to the case analyzer and that decision is provided to the customer and the account sales.

Katz et al. discloses when an internal or external event occurs, directly affecting the purchase and/or sale of an item, and/or decisions regarding procurement, sourcing, strategic sourcing, and other business processes, the system understands the event, correlates the event with the aforementioned processes, automatically invokes one or more software modules, which make recommendations and send alerts to users about the potential impact of such an event. Components for implementing this method consist of internal data collection components, external data collection components, data integration components, and data application components. Various methods for searching, extracting, transforming, integrating, analyzing, and representing both data internal to an enterprise and data external to an enterprise are also disclosed (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Katz et al. in order make a more sound decision to provide or not provide the sale to the customer.

As per claims 9-10 and 21-22, Mori et al. does not expressly disclose wherein the decision is made to provide the case document to the case analyzer whereby regional information is added to the case document before the case

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document is provided to the case analyzer; and wherein the regional information includes data on the financial impact of the pricing decision.

Katz et al. discloses when an internal or external event occurs, directly affecting the purchase and/or sale of an item, and/or decisions regarding procurement, sourcing, strategic sourcing, and other business processes, the system understands the event, correlates the event with the aforementioned processes, automatically invokes one or more software modules, which make recommendations and send alerts to users about the potential impact of such an event. Components for implementing this method consist of internal data collection components, external data collection components, data integration components, and data application components. Various methods for searching, extracting, transforming, integrating, analyzing, and representing both data internal to an enterprise and data external to an enterprise are also disclosed (abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Katz et al. in order make a more sound decision to provide or not provide the sale to the customer based on external data. .

As per claims 12 and 24, Mori et al. does not explicitly disclose wherein the internal information provided to the case analyzer includes market data.

However, Katz et al. discloses targeting procurement and supply chain professionals, VCI systems in accordance with the present invention provide a

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variety of solutions that enable companies to reduce the risk of shortages, quickly take advantage of *market opportunities*, and improve overall capital efficiency. Such VCI systems allow companies to access external supplier and *spot market data*, integrate this data with internal data from multiple enterprise systems, analyze the impact of this data on the supply chain to identify risks and opportunities, and act on these findings. Such VCI systems may be used to combine supply chain planning and execution functions with other services, such as data integration, demand forecasting, and continuous market analysis, enabling users to not only gain insights into their supply chain operations, but also share the data among all participants in the supply chain network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Katz et al. in order make a more sound decision to provide or not provide the sale to the customer based on external data, as well as, market data.

5. Claim 46 is rejected under 35 U.S.C. 103(a) as being anticipated by Mori et al. (US PG Pub. 2002/0143424), in view of Kochpatcharin et al. (US Patent Number 7,363,236).

As per claim 46, Mori disclose the photomask manufacturer determines a degree of production difficulty based on the specifications of the photomask included in the received estimation request data, and determines the price ([0066]). Mori et al. does not explicitly disclose wherein producing the

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semiconductor product requires a number of mask layers, and wherein the level of technological complexity is related to the number of mask layers.

However, Kochpatcharin et al. disclose FIG. 6 shows an overview of the foundry (user's) standards. For a reticle technology (e.g., 0.18 μ m), various reticle processes are defined and the process have many standards such as groundrules, the number of metal layers, etc. When a customer orders a device and mask set to be made, a technology is selected, then a process is selected. Then customer specific standards are specified by the device design. Lastly, a device id # is assigned the specific reticle set designed for the customer's device (col. 9, lines 29-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the feature of Kochpatcharin et al. in order to price to wafers based on a number of factors.

6. Claims 48-49 are rejected under 35 U.S.C. 103(a) as being anticipated by Mori et al. (US PG Pub. 2002/0143424), in view of Aday et al. (20030149673).

As per claims 48-49, Mori et al. disclose the degree of production difficulty is calculated based on a yield corresponding to the specifications of photomask. The responded delivery date is calculated based on the yield, which depends on the specifications of the photomask included in the received estimation request data, and an operation time of devices used for the production ([0066]).

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Mori et al. does not expressly wherein the semiconductor industry sale pricing decision relates to a price to be charged to the customer for producing a quantity of semi-conductor wafers, each semiconductor wafer having a number of semiconductor dies, wherein the price calculated in the generating step is a die price that is derived at least in part from an estimated yield of saleable semiconductor dies from a semiconductor wafer; and wherein the price calculated in the generating step is a wafer price that is a multiple of a wafer production cost, wherein the multiple is chosen based on the level of technological complexity.

However, Aday et al. disclose once calculated, the initial custom die price can then be adjusted using the complexity factor. In one embodiment, the initial custom die price is multiplied by the complexity factor to yield the custom die price. Other methods of adjusting the custom die price can be used and are equally covered by the invention ([0032]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Mori et al. to include the die pricing feature of Aday et al. in order price custom semiconductor products based on the yield and complexity factor (Aday, ([0040])).

7. Claims 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mori et al. (US PG Pub. 2002/0143424).

As per claims 50-51, Mori et al. does not expressly disclose wherein the case summary document further includes a comparison to at least one other

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customer using similar technology; and wherein the case summary document further includes a comparison to at least one other customer in a different geographic sales region, however, information as to comparing customer's using similar technology and customer's in a different sales region is non-functional language and given no patentable weight. Non-functional descriptive material cannot render non-obvious an invention that would otherwise have been obvious.

See: In re Gulack 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983) In re Dembiczak 175 F.3d 994, 1000, 50 USPQ2d 1614, 1618 (Fed. Cir. 1999).

The specific example of non-functional descriptive material is provided in MPEP 2106, Section VI: (example 3) a process that differs from the prior art only with respect to non-functional descriptive material that cannot alter how the process steps are to be performed. The method steps, disclosed in would be performed the same regardless of the what was disclosed on the case summary document Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made that it was old and well known to include certain information on a case summary document because such information does not functionally relate to the steps in the method claimed and does not patentably distinguish the claimed invention.

Examiner's Note

Examiner cited particular pages, columns, paragraphs and/or line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FREDA A. NELSON whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Wednesday and Friday, 10:00 AM -6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/F. A. N./
Examiner, Art Unit 3628

/JOHN W HAYES/
Supervisory Patent Examiner, Art Unit 3628